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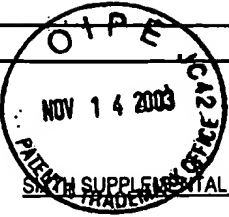
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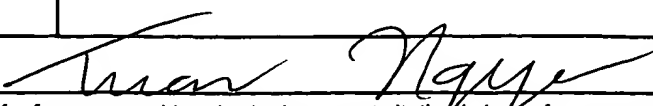
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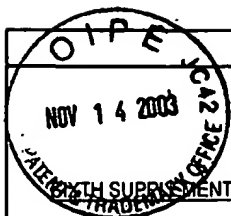
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TN	AA42	2631286 B2	07/1997	JP			Abstract Enclosed
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	AC42	2728190 B2	03/1998	JP			Abstract Enclosed
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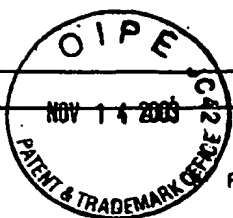
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	AC43	2790237 B2	08/1998	JP			Abstract Enclosed
	AD43	2812375 B2	10/1998	JP			Abstract Enclosed

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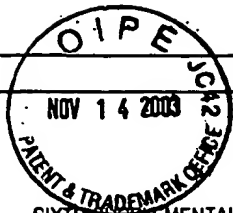
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	APPLICANTS Yukio SHAKUDA	
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	AC45	2914065 B2	06/1999	JP			Abstract Enclosed
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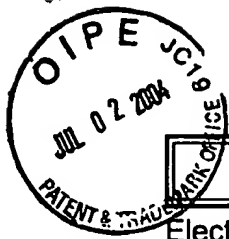
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Title of Invention	Semiconductor Light Emitting Device and Manufacturing Method Therefor																																																																																																					
<div>Application Number: 09/604097</div> <div>Confirmation Number: 6648</div> <div>First Named Applicant: Yukio SHAKUDA</div> <div>Attorney Docket Number: 2005.0020003</div> <div>Art Unit: 2828</div> <div>Examiner: Tuan N. Nguyen</div> <div>Search string: (3226270 or 3364084 or 3433684 or 3604991 or 3733561 or 3758875 or 3819974 or 3983509 or 3984262 or 4063189 or 4249142 or 4328469 or 4335461 or 4371966 or 4675709 or 4839899 or 4984242 or 4999841 or 5008718 or 5023880 or 5048036 or 5060028 or 5138404 or 5153148 or 5164798 or 5212705 or 5233204 or 5235609 or 5252466 or 5301202 or 5359209 or 5369658 or 5395792 or 5483547 or 5555271 or 5583881 or 5689123 or 6009112).pn.</div> <div>US Patent Documents</div> <div>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</div> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td></td><td>1</td><td>3226270</td><td>1965-12-28</td><td>Miederer et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>2</td><td>3364084</td><td>1968-01-16</td><td>Ruehrwein</td><td></td><td></td><td></td></tr><tr><td></td><td>3</td><td>3433684</td><td>1969-03-18</td><td>Zanowick et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>4</td><td>3604991</td><td>1971-09-14</td><td>Yonezu et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>5</td><td>3733561</td><td>1973-05-15</td><td>Hayashi</td><td></td><td></td><td></td></tr><tr><td></td><td>6</td><td>3758875</td><td>1973-09-11</td><td>Hayashi</td><td></td><td></td><td></td></tr><tr><td></td><td>7</td><td>3819974</td><td>1974-06-25</td><td>Stevenson et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>8</td><td>3983509</td><td>1976-09-28</td><td>Scifres et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>9</td><td>3984262</td><td>1976-10-05</td><td>Burnham et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>10</td><td>4063189</td><td>1977-12-13</td><td>Scifres et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>11</td><td>4249142</td><td>1981-02-03</td><td>Burnham et al.</td><td></td><td></td><td></td></tr></tbody></table>							init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass		1	3226270	1965-12-28	Miederer et al.					2	3364084	1968-01-16	Ruehrwein					3	3433684	1969-03-18	Zanowick et al.					4	3604991	1971-09-14	Yonezu et al.					5	3733561	1973-05-15	Hayashi					6	3758875	1973-09-11	Hayashi					7	3819974	1974-06-25	Stevenson et al.					8	3983509	1976-09-28	Scifres et al.					9	3984262	1976-10-05	Burnham et al.					10	4063189	1977-12-13	Scifres et al.					11	4249142	1981-02-03	Burnham et al.			
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	12	4328469	1982-05-04	Scifres et al.
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	14	4371966	1983-02-01	Scifres et al.
	15	4675709	1987-06-23	Scifres et al.
	16	4839899	1989-06-13	Burnham et al.
	17	4984242	1991-01-08	Scifres et al.
	18	4999841	1991-03-12	Sakiyama et al.
	19	5008718	1991-04-16	Fletcher et al.
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	21	5048036	1991-09-10	Scifres et al.
	22	5060028	1991-10-22	Kuo et al.
	23	5138404	1992-08-11	Ishikawa et al.
	24	5153148	1992-10-06	Sakiyama et al.
	25	5164798	1992-11-17	Huang
	26	5212705	1993-05-18	Kahen et al.
	27	5233204	1993-08-03	Fletcher et al.
	28	5235609	1993-08-10	Uchida et al.
	29	5252466	1993-10-12	Cronan, Jr.
	30	5301202	1994-04-05	Harder et al.
	31	5359209	1994-10-25	Huang
	32	5369658	1994-11-29	Ikawa et al.
	33	5395792	1995-03-07	Ikawa et al.
	34	5483547	1996-01-09	Adams et al.
	35	5555271	1996-09-10	Honda et al.
	36	5583881	1996-12-10	Uchida et al.
	37	5689123	1997-11-18	Major et al.
	38	6009112	1999-12-28	Uchida

Signature

Examiner Name	Date
<i>Wan Nguye</i>	8/21/04



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**SEVENTH SUPPLEMENTAL
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2005.0020003APPLICATION NO.
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2828**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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TN	AC46	1,325,582	12/1993	CA			N/A
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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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TN	AK47	<i>Response of Nichia America Corporation To Amended Complaint of Rohm Co., Ltd. And Notice of Investigation, with Exhibits D-H, 120 Pages, Dated February 13, 2001 In the Matter of Certain Semiconductor Light Emitting Devices, Components Thereof, and Products Containing Same, Investigation No. 337-TA-444 before the U.S. International Trade Commission.</i>

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TN	AA47	778,383	07/1957	GB			N/A
	AB47	1,011,979	12/1965	GB			N/A
	AC47	2-74088 A	03/1990	JP			Abstract Enclosed
	AD47	2-111016 A	04/1990	JP			Abstract Enclosed

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

TN	AE48	<i>Respondent Nichia Corporation's Objections and Responses To Complainant Rohm Co., Ltd.'s Fourth Set of Interrogatories Nos. 110-120, 20 Pages, Dated March 28, 2001 In the Matter of Certain Semiconductor Light Emitting Devices, Components Thereof, and Products Containing Same, Investigation No. 337-TA-444 before the U.S. International Trade Commission.</i>
	AF48	<i>Order No. 6: Denying Motion of Respondents Nichia Corporation and Nichia America Corporation for Sanctions for Abuse of Commission Process, and to Show Cause Why Rohm Co. Ltd. Has Not Violated Commission Rule 210.4(c), 12 Pages, Dated June 27, 2001 In the Matter of Certain Semiconductor Light Emitting Devices, Components Thereof, and Products Containing Same, Investigation No. 337-TA-444 before the U.S. International Trade Commission.</i>
	AG48	<i>Response and Counterclaim of Nichia Corporation and Nichia America Corporation, 27 Pages, Dated November 9, 2001, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., and Cree, Inc., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AH48	<i>Notice, 4 Pages, Dated March 8, 2002 In the Matter of Certain Semiconductor Light Emitting Devices, Components Thereof, and Products Containing Same, Investigation No. 337-TA-444 before the U.S. International Trade Commission.</i>
	AI48	<i>Nichia's Expedited Motion to Declare Rohm's Certificates of Correction Ineffective for this Action, 3 Pages, Dated June 26, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AJ48	<i>Memorandum in Support of Nichia's Expedited Motion to Declare Rohm's Certificates of Correction Ineffective for this Action, with Exhibits A-H, 61 Pages, Dated June 26, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AK48	<i>Nichia Corporation's Objections and Responses to Rohm's Second Set of Interrogatories (Nos. 9-15), 16 Pages, Dated July 10, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>

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TN	AA48	3-85785 A	04/1991	JP			Abstract Enclosed
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	AC48	4-111375 A	04/1992	JP			Abstract Enclosed
	AD48	4-130692 A	05/1992	JP			Abstract Enclosed

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

TN	AE49	<i>Nichia's Brief in Opposition to Rohm's Motion for Leave to File a Supplemental Pleading and in Support of Nichia's Expedited Motion to Declare Rohm's Certificates of Correction Ineffective for this Action, 7 Pages, Dated July 22, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AF49	<i>Nichia's Motion to Strike the '899 Patent from the Case, 3 Pages, Dated September 11, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AG49	<i>Memorandum in Support of Nichia's Motion to Strike the '899 Patent from the Case, with Exhibits 1-2, 63 Pages, Dated September 11, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AH49	<i>Brief of Rohm Co., Ltd. in Opposition to Nichia's Motion to Strike the '899 Patent from the Case, with Exhibits 1-4, 29 Pages, Dated September 25, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AI49	<i>Nichia's Opposition to Rohm's Motion to Compel, with Exhibit 1, 48 Pages, Dated September 26, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AJ49	<i>Reply Memorandum in Support of Nichia's Motion to Strike the '899 Patent from the Case, 10 Pages, Dated October 2, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>
	AK49	<i>Nichia's Emergency Motion to Compel the Deposition of Alleged Sole Inventor Yukio Shakuda to Proceed on January 30, 2004 and to Compel Shakuda to Review and Bring Documents Supporting His Alleged Inventorship, with Proposed Order, 7 Pages, Dated October 8, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.</i>

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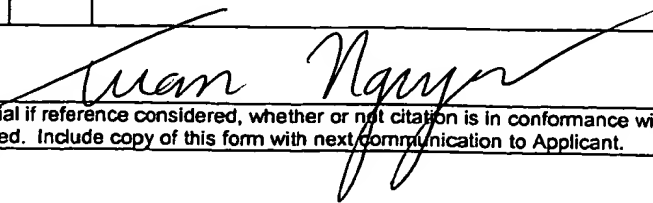
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	INVENTOR Yukio SHAKUDA	
	FILING DATE June 27, 2000	ART UNIT 2828

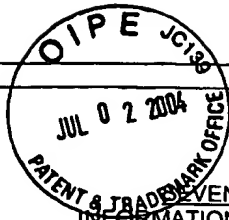
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	AC49	5-160504 A	06/1993	JP			Abstract Enclosed
	AD49	2908815 B2	04/1999	JP			Abstract Enclosed

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TN	AE50	Brief in Support of Nichia's Emergency Motion to Compel the Deposition of Alleged Sole Inventor Yukio Shakuda to Proceed on January 30, 2004 and to Compel Shakuda to Review and Bring Documents Supporting His Alleged Inventorship, with Exhibits A-D, 33 Pages, Dated October 8, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.
	AF50	Clarification to Nichia's Motion to Strike the '899 Patent from the Case and Nichia's Response to Rohm's Motion to Compel, with Exhibits A-C, 16 Pages, Dated October 14, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.
	AG50	Reply Memorandum in Support of Nichia's Motion Compel, with Exhibit 1, 24 Pages, Dated November 3, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.
	AH50	Reply Brief in Support of Nichia's Emergency Motion to Compel the Deposition of Alleged Sole Inventor Yukio Shakuda to Proceed on January 30, 2004 and to Compel Shakuda to Review and Bring Documents Supporting His Alleged Inventorship, with Exhibits A-D, 29 Pages, Dated December 4, 2003, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation v. Rohm Co., Ltd., Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.
	AI50	Motion and Stipulation of Voluntary Dismissal with Prejudice Pursuant to Federal Rule of Civil Procedure 41(a)(2), 2 Pages, Dated February 12, 2004, in Rohm Co., Ltd. v. Nichia Corporation and Nichia America Corporation, Civil Action No. 00-CV-6379, U.S. District Court for the Eastern District of Pennsylvania.
	AJ50	"Hole Compensation Mechanism of p-Type GaN Films," 9 pages.
	AK50	"Shallow Impurity Passivation by Atomic Hydrogen," 14 pages.

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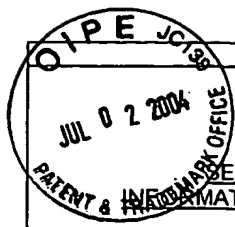
TN	AE51	Lockwood, H.F. <i>et al.</i> , "An Efficient Large Optical Cavity Injection Laser," <i>Applied Physics Letters</i> , Vol. 17, No. 11, pp. 499-502 (December 1, 1970).
	AF51	Thompson, G.H.B. and Kirkby, P.A., "(GaAl)As Lasers With a Heterostructure for Optical Confinement and Additional Heterojunctions for Extreme Carrier Confinement," <i>IEEE Journal of Quantum Electronics</i> , Vol. QE-9, No. 2, pp. 311-318 (February 1973).
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	AI51	Pearson, S.J. <i>et al.</i> , "Hydrogen passivation of shallow level impurities and deep level defects in GaAs," <i>Inst. Phys. Conf. Ser. No. 83: Chapter 5</i> , (Paper presented at Int. Symp. GaAs and Related Compounds, Las Vegas, Nevada), pp. 289-294, IOP Publishing Ltd. (1986).
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	AK51	Chinone, N. <i>et al.</i> , "Highly efficient (GaAl)As buried-heterostructure lasers with buried optical guide," <i>Applied Physics Letters</i> , Vol. 35, No. 7, pp. 513-516 (October 1, 1979).

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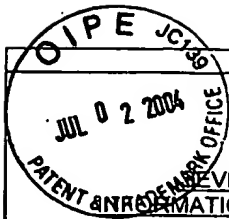
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	AF52	Botez, D., "cw high-power single-mode operation of constricted double-heterojunction AlGaAs lasers with a large optical cavity," <i>Applied Physics Letters</i> , Vol. 36, No. 3, American Institute of Physics, pp. 190-192 (February 1, 1980).
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	AI52	Magnea, N. <i>et al.</i> , "SEM and Photoluminescence Study of Li Segregation in Annealed Zinc Telluride," <i>Solid State Communications</i> , Vol. 29, No. 1, Pergamon Press Ltd., pp. 35-38 (1979).
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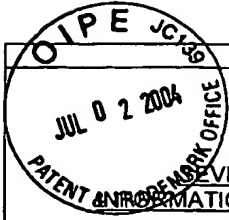
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TU	AE53	Sah, C.-T. <i>et al.</i> , "Study of the atomic models of three donor-like traps on oxidized silicon with aluminum gate from their processing dependencies," <i>Journal of Applied Physics</i> , Vol. 54, No. 10, American Institute of Physics, pp. 5864-5879 (October 1983).
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	AH53	Stringfellow, G.B., "A Critical Appraisal of Growth Mechanisms in MOVPE," <i>Journal of Crystal Growth</i> , Vol. 68, Science Publishers B.V., pp. 111-122 (1984).
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	AK53	Hartmann, H. <i>et al.</i> , <i>Wide gap II-VI compounds as electronic materials</i> , pp. 352, 353, 368, 369, 646, 647, 650 and 651.

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	AF54	Mawst, L.J. <i>et al.</i> , "MOCVD of III-V Compound Epitaxial Layers," <i>Semiconductor International</i> , pp. 61-63 (November 1986).
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	AJ54	Linden, K.J., "MOCVD: Expanding The Range of Photonic Materials," <i>Photonics Spectra</i> , pp. 91, 92, 94-98 and 100 (February 1991).
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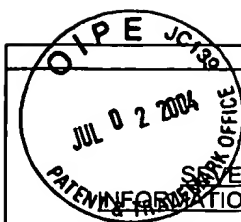
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TN	AE55	Moustakas, T.D. and Molnar, R.J., "Growth and Doping of GaN Films by ECR-Assisted MBE," <i>Mat. Res. Soc. Symp. Proc.</i> , Vol. 281, Materials Research Society, pp. 753, 755, 757, 759, 761 and 763 (1993).
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	AG55	Van Vechten, J.A. <i>et al.</i> , "Defeating Compensation in Wide Gap Semiconductors by Growing in H that is Removed by Low Temperature De-Ionizing Radiation," <i>Japanese Journal of Applied Physics</i> , Vol. 31, Part 1, No. 11, pp. 3662-3663 (November 1992).
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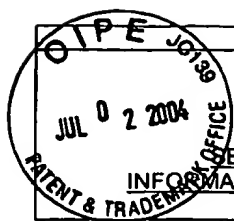
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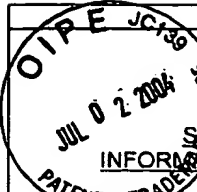
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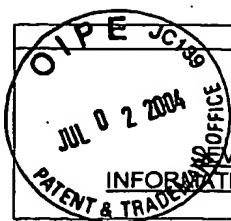
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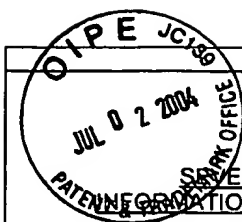
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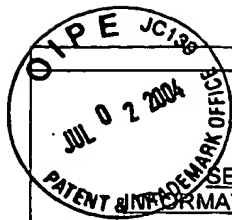
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I	AF60	Murata, H. <i>et al.</i> , "Low Threshold Current Density of 620 nm Band MQW-SCH AlGaInP Semiconductor Lasers With Mg Doped AlInP Cladding Layer," <i>Electronics Letters</i> , Vol. 27, No. 17, IEE, pp. 1569-1571 (August 15, 1991).
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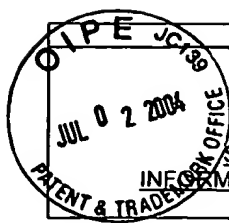
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TN	AE61	Watanabe, M.O. and Ohba, Y., "Interface properties for GaAs/InGaAlP heterojunctions by the capacitance-voltage profiling technique," <i>Applied Physics Letters</i> , Vol. 50, No. 14, American Institute of Physics, pp. 906-908 (April 6, 1987).
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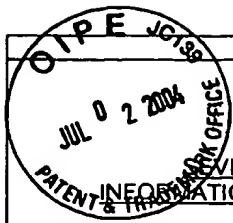
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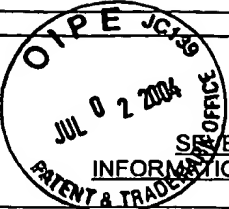
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TN	AE63	Amano, H. <i>et al.</i> , "Room-Temperature Low-Threshold Surface-Stimulated Emission by Optical Pumping from $Al_{0.1}Ga_{0.9}N/GaN$ Double Heterostructure," <i>Japanese Journal of Applied Physics</i> , Vol. 32, Part 2, No. 7B, pp. L1000-L1002 (July 15, 1993).
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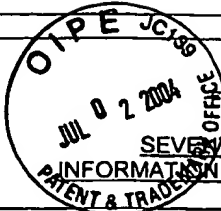
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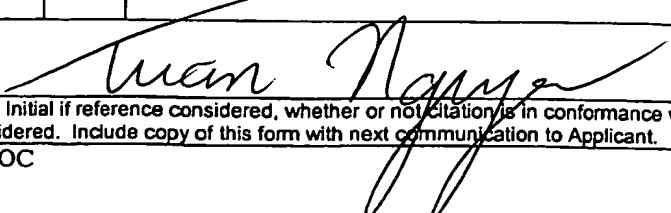
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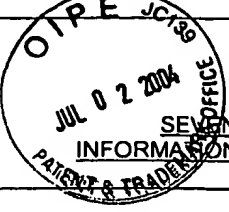
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TN	AE65	Akasaki, I. and Amano, H., "Conductivity Control of AlGaIn, Fabrication of AlGaIn/GaN Multi-Heterostructure and Their Application to UV/Blue Light Emitting Devices," <i>Materials Research Society Symposium Proceedings</i> , Vol. 242, Materials Research Society, pp. 383-394 (1992).
	AF65	Sturge, M.D. (ed.), <i>Journal of Luminescence: An Interdisciplinary Journal of Research on Excited State Processes in Condensed Matter</i> , Vols. 48 and 49, Part II, North-Holland, Cover page (1991).
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	AH65	Christou, A. and Rupprecht, H.S. (eds.), <i>Proceedings of the Fourteenth International Symposium on Gallium Arsenide and Related Compounds held in Heraklion, Crete, IOP Publishing Ltd.</i> , Cover page (September 28 - October 1, 1987).
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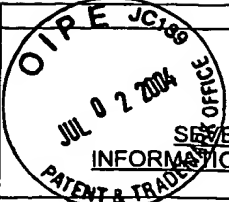
TN	AE66	Amano, H. and Akasaki, I., "Present and future prospects of GaN-based short-wavelength, light emitting devices," <i>Oyo Buturi</i> , Vol. 63, No. 12, pp. 1243-1247 (December 12, 1994).
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	AG66	Blakemore, J.S., "Semiconducting and other major properties of gallium arsenide," <i>Journal of Applied Physics</i> , Vol. 53, No. 10, American Institute of Physics, pp. R123-R130 and R132-R181 (October 1982).
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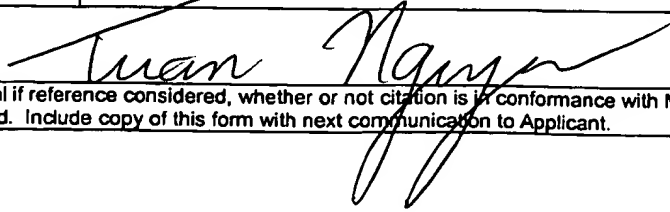
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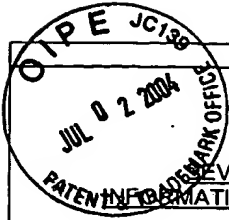
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TN	AE67	Covington, B.C. <i>et al.</i> , "Infrared intersubband absorption in GaAs/AlAs multiple quantum wells," <i>Applied Physics Letters</i> , Vol. 54, No. 21, American Institute of Physics, pp. 2145 and 2147 (May 22, 1989).
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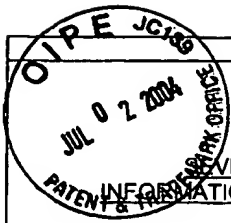
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TN	AE69	Xu, Y.-N. and Ching, W.Y., "Electronic, optical, and structural properties of some wurtzite crystals," <i>Physical Review B</i> , Vol. 48, No. 7, The American Physical Society, pp. 4335-4348 (August 15, 1993).
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FORM PTO-1449

SEVENTH SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
2005.0020003APPLICATION NO.
09/604,097INVENTOR
Yukio SHAKUDAFILING DATE
June 27, 2000ART UNIT
2828

Page 24 of 24

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EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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	AB						N/A
	AC						N/A
	AD						N/A

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

ATTORNEY'S DKT NO.
033022-004

APPLICATION NO.
09/604,097

APPLICANT
Yukio Shakuda

FILING DATE
June 27, 2000

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2874

U.S. PATENT DOCUMENTS

Examiner Initials	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication (MM-DD-YYYY)
	Number	Kind Code (if known)		
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	Number	Kind Code (if known)			Yes	no
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Examiner Initials	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
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Examiner Signature	<i>Tran Nguyen</i>
Date Considered	8/27/04

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Examiner Initials	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication (MM-DD-YYYY)
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NON-PATENT LITERATURE DOCUMENTS

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Examiner Signature	Tuan Nguyen	Date Considered	8/27/04

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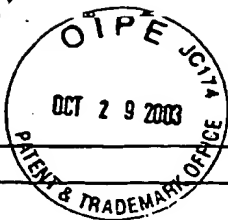
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033022-004SHEET 3 OF 3
APPLICATION NO.
09/604,097INFORMATION DISCLOSURE
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FOREIGN PATENT DOCUMENTS					
Examiner Initials	Foreign Patent Document		Country	Date of Publication (MM-DD-YYYY)	Translation Yes no
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NONPATENT LITERATURE DOCUMENTS					
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	Notice of Opposition of EP 0.541.373, filed June 30, 1999 in EP Patent Office				
	Response letter to Oppositions by A.A. Thornton & Co., dated March 3, 2000				
Examiner Signature	[Signature]			Date Considered	8/27/04

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FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
2005.0020003APPLICATION NO.
09/604,097APPLICANTS
Yukio SHAKUDAFILING DATE
June 27, 2000GROUP
2828

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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8/27/04

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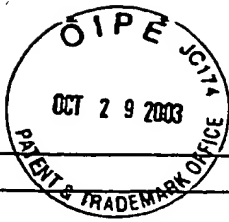
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2005.0020003APPLICATION NO.
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
TN	AA5	4-10665 A	01/1992	JP			Abstract Enclosed
	AB5	4-15200 B2	03/1992	JP			Abstract Enclosed
	AC5	4-163968 A	06/1992	JP			Abstract Enclosed
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TN	AE5	Goldberg, B.B. <i>et al.</i> , "Inelastic Light Scattering Of Valence Subband Transitions In GaAs/GaAlAs Multiple Quantum Wells," <i>Surface Science</i> 196, Elsevier Science Publishers B.V., pp. 619-625 (1988).
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	AH5	Kastalsky, A. <i>et al.</i> , "Photovoltaic detection of infrared light in a GaAs/AlGaAs superlattice," <i>Appl. Phys. Lett.</i> 52(16), American Institute of Physics, pp. 1320-1322 (April 18, 1988).
	AI5	Bäuerle, R.J. <i>et al.</i> , "Picosecond infrared spectroscopy of hot carriers in a modulation-doped Ga _{0.47} In _{0.53} As multiple-quantum-well structure," <i>Physical Review B</i> , Vol. 38, No. 6, The American Physical Society, pp. 4307-4310 (August 15, 1988).
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I	AD6	4-247637 A	09/1992	JP			Abstract Enclosed

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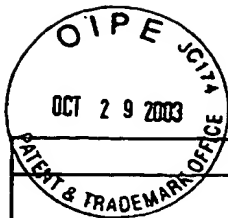
TN	AE6	Seilmeier, A. <i>et al.</i> , "Picosecond Intersubband Spectroscopy," <i>Superlattices and Microstructures</i> , Vol. 5, No. 4, Academic Press Limited, pp. 569-574 (1989).
I	AF6	Kane, M.J. <i>et al.</i> , "Intersubband Absorption and Infrared Modulation in GaAs/AlGaAs Single Quantum Wells," <i>Superlattices and Microstructures</i> , Vol. 5, No. 4, Academic Press Limited, pp. 587-589 (1989).
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TN	AA9	5-109621 A	04/1993	JP			Abstract Enclosed
	AB9	5-110139 A	04/1993	JP			Abstract Enclosed
	AC9	5-121327 A	05/1993	JP			Abstract Enclosed
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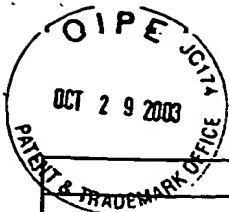
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TN	AA10	5-160437 A	06/1993	JP			Abstract Enclosed
	AB10	5-166923 A	07/1993	JP			Abstract Enclosed
	AC10	5-175124 A	07/1993	JP			Abstract Enclosed
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TN	AE10	Ahn, D. and Chuang, S.L., "Nonlinear intersubband optical absorption in a quantum well with an applied electric field," abstract from the October 18-23, 1997 Annual Meeting of the Optical Society of America, 1 page.
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	AI10	Ji, G. <i>et al.</i> , "Optical investigation of highly strained InGaAs -GaAs multiple quantum wells," <i>J. Appl. Phys.</i> 62(8), American Institute of Physics, pp. 3366-3373 (October 15, 1987).
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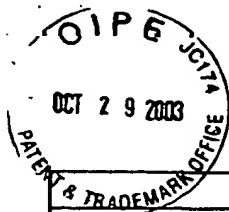
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I	AB11	5-190903 A	07/1993	JP			Abstract Enclosed
I	AC11	5-206520 A	08/1993	JP			Abstract Enclosed
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TN	AE11	Watson, R.F. <i>et al.</i> , "Shattering The Quartz Muffle Myth," pp. 194-202.
I	AF11	Bertolet, D.C. <i>et al.</i> , "Pseudomorphic GaAs/InGaAs single quantum wells by atmospheric pressure organometallic chemical vapor deposition," <i>Appl. Phys. Lett.</i> 52(4), American Institute of Physics, pp. 293-295 (January 25, 1988).
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	AI12	Scott, E.G. et al., "Improvements to and characterization of GaInAs/AlInAs heterointerfaces grown by molecular-beam epitaxy," <i>J. Vac. Sci. Technol. B</i> 6(2), American Vacuum Society, pp. 603-606 (March/April 1988).
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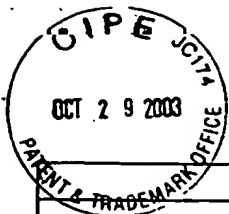
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TN	AE14	Bhattacharya, P.K. et al., "Low defect densities in molecular beam epitaxial GaAs achieved by isoelectronic In doping," <i>Appl. Phys. Lett.</i> 49(8), American Institute of Physics, pp. 470-472 (August 25, 1986).
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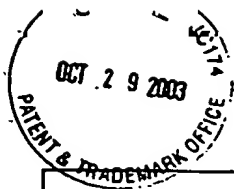
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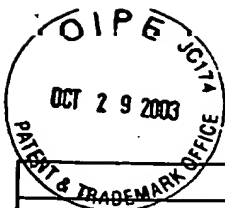
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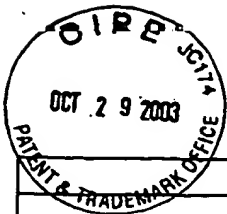
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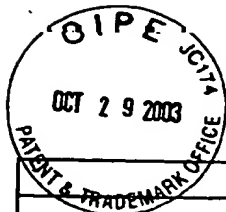
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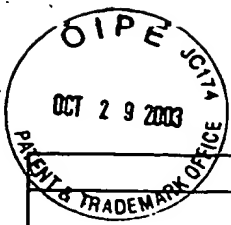
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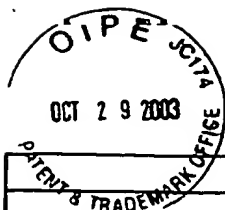
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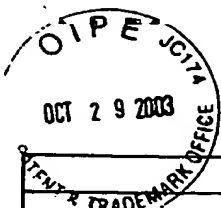
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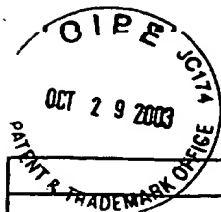
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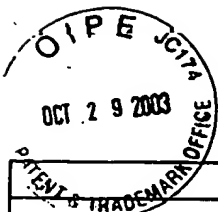
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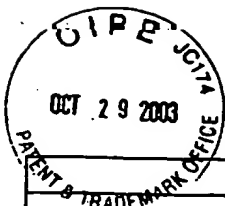
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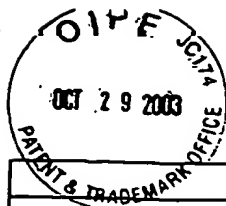
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ATTY. DOCKET NO.
2005.0020003APPLICATION NO.
09/604,097

FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

APPLICANTS
Yukio SHAKUDAFILING DATE
June 27, 2000GROUP
2828

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AA43						
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TN	AE43	Eliseev, P.G. <i>et al.</i> , "Impurity-Related Photoluminescence From InGaN LED Material," pp. 104-105.
	AF43	Kishino, S. <i>et al.</i> , "Half-width and peak-intensity measurement of a rocking curve obtained from silicon on sapphire using soft x-ray beams," <i>Journal of Applied Physics</i> , Vol. 48, No. 7, American Institute of Physics, pp. 3138-3140 (July 1977).
	AG43	Palummo, M. <i>et al.</i> , "Electronic Structure of Cubic GaN with Self-Energy Corrections," <i>Europhysics Letters</i> , 26 (8), pp. 607-612 (1994).
	AH43	Bulman, G.E. <i>et al.</i> , "Demonstration of a Cleaved-Facet InGaN/GaN MQW SCH Laser Grown on 6H-SiC," 2 pages.
	AI43	Trilhe, J. <i>et al.</i> , "Characterization Of The Silicon-Sapphire Interface," <i>Journal of Crystal Growth</i> 45, North-Holland Publishing Company, pp. 439-444 (1978).
	AJ43	Sun, C.J. <i>et al.</i> , "Thermal stability of GaN thin films grown on (0001) Al ₂ O ₃ , (0112) Al ₂ O ₃ and (0001) _s 6H-SiC substrates," <i>J. Appl. Phys.</i> 76 (1), American Institute of Physics, pp. 236-241 (July 1, 1994).
	AK43	Hsu, S.T., "Electron Mobility in SOS Films," <i>IEEE Transactions on Electron Devices</i> , Vol. ED-25, No. 8, IEEE, pp. 913-916 (August 1978).

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TN	AE44	Rubio, A. <i>et al.</i> , "Quasiparticle band structures of short-period superlattices and ordered alloys of AlN and GaN," <i>Physical Review B</i> , Vol. 49, No. 3, The American Physical Society, pp. 1952-1956 (January 15, 1994).
	AF44	Shul, R.J. <i>et al.</i> , "Plasma-Induced-Damage of GaN," <i>Electrochemical Society Proceedings</i> , Vol. 96-15, pp. 232-243.
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	AH44	Shul, R.J. <i>et al.</i> , "Comparison of Dry-Etch Techniques For GaN, InN, and AlN," 7 pages.
	AI44	<i>ION Source Reference Guide</i> , Commonwealth Science Corporation, 17 pages.
	AJ44	Shul, R.J. <i>et al.</i> , "Inductively Coupled Plasma Etching of GaN," 13 pages.
	AK44	Adesida, I. <i>et al.</i> , "Characteristics of chemically assisted ion beam etching of gallium nitride," <i>Appl. Phys. Lett.</i> 65(7), American Institute of Physics, pp. 889-891 (August 15, 1994).

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TN	AE45	Pearlton, S.J. <i>et al.</i> , "Ar ⁺ -ion milling characteristics of III-V nitrides," <i>J. Appl. Phys.</i> 76(2), American Institute of Physics, pp. 1210-1215 (July 15, 1994).
	AF45	Pearlton, S.J. <i>et al.</i> , "Letter to the editor: Dry etching of thin-film InN, AlN and GaN," <i>Semicond. Sci. Technol.</i> 8, pp. 310-312 (1993).
	AG45	Shul, R.J. <i>et al.</i> , "Comparison of Dry Etch Techniques for GaN," 9 pages.
	AH45	Tojyo, T. <i>et al.</i> , "GaN-based High Power Blue-violet Laser Diodes," 5 pages.
	AI45	Koike, M. <i>et al.</i> , "RT-CW operation of GaN-based Laser Diodes improved by GaN/AlInN optical guiding lasers," 2 pages.
	AJ45	Lagerstedt, O. <i>et al.</i> , "Properties of GaN tunneling MIS light-emitting diodes," <i>J. Appl. Phys.</i> 49(5), American Institute of Physics, pp. 2953-2957 (May 1978).
	AK45	Self, K., "Prolog to Emerging Gallium Nitride Based Devices," <i>Proceedings Of The IEEE</i> , Vol. 83, No. 10, p. 1305 (October 1995).

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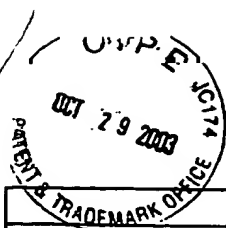
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TN	AE46	Mohammad, S.N. <i>et al.</i> , "Emerging Gallium Nitride Based Devices," <i>Proceedings of the IEEE</i> , Vol. 83, No. 10, pp. 1306-1355 (October 1995).
I	AF46	Goldenberg, B. <i>et al.</i> , "Ultraviolet and violet light-emitting GaN diodes grown by low-pressure metalorganic chemical vapor deposition," <i>Appl. Phys. Lett.</i> 62(4), American Institute of Physics, pp. 381-383 (January 25, 1993).
	AG46	Shan, W. <i>et al.</i> , "Pressure-dependent photoluminescence study of wurtzite GaN," <i>Appl. Phys. Lett.</i> 66(25), American Institute of Physics, pp. 3492-3494 (June 19, 1995).
	AH46	Wang, Y. and Mikkola, D.E., "Shock deformation of sapphire single crystals," <i>Materials Science and Engineering</i> , Elsevier Sequoia, pp. 25-32 (1991).
	AI46	Akasaki, I. And Amano, H., "High efficiency UV and blue emitting devices prepared by MOVPE and low energy electron beam irradiation treatment," <i>Proceedings of SPIE: Physical Concepts of Materials for Novel Optoelectronic Device Applications I: Materials Growth and Characterization</i> , pp. 138-149 (October 28-November 2, 1990).
	AJ46	Neugebauer, J. and Van De Walle, C.G., "Defects And Doping in GaN," pp. 2327-2330.
	AK46	Abernathy, C.R., "The Role of Hydrogen In UHV Growth of III-V Semiconductors," <i>Materials Science Forum</i> , Vols. 148-149, Trans Tech Publications, pp. 3-25 (1994).

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TN	AE47	Wetzel, C. <i>et al.</i> , "Excitation Spectroscopy and Level Assignment in Piezoelectric Ga _{1-x} In _x N/GaN Quantum Wells," 2 pages.
	AF47	Matsuoka, T. <i>et al.</i> , "Wide-Gap Semiconductor InGaN and InGaAlN Grown by MOVPE," <i>Journal of Electronic Materials</i> , Vol. 21, No. 2, pp. 157-163 (1992).
	AG47	Albanesi, E.A. <i>et al.</i> , "Theoretical study of the band offsets at GaN/AlN interfaces," <i>J. Vac. Sci. Technol. B</i> 12(4), American Vacuum Society, pp. 2470-2474 (July/August 1994).
	AH47	Dissanayake, A. <i>et al.</i> , "Low-temperature epitaxial growth and photoluminescence characterization of GaN," <i>Appl. Phys. Lett.</i> 65(18), American Institute of Physics, pp. 2317-2319 (October 31, 1994).
	AI47	Wickenden, D.K. <i>et al.</i> , "Thermally annealed GaN nucleation layers and the device-quality metal organic chemical vapor deposition growth of Si-doped GaN films on (00.1) sapphire," <i>J. Appl. Phys.</i> 75(11), American Institute of Physics, pp. 7585-7587 (June 1, 1994).
	AJ47	Saxler, A. <i>et al.</i> , "High quality aluminum nitride epitaxial layers grown on sapphire substrates," <i>Appl. Phys. Lett.</i> 64(3), American Institute of Physics, pp. 339-341 (January 17, 1994).
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